UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

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Dear Mr. Galanty:

This letter responds to your letter of April 9, 1993, regarding Superfund emergency response and reportable quantity (RQ) questions that have been asked by callers to the Resource Conservation and Recovery Act/Superfund/Office of Underground Storage Tanks and the Emergency Planning and Community Right-to-Know Act (EPCRA) Hotlines.

A number of these questions were posed earlier by your office in two letters from Ms. Amy E. Norgren dated April 15 and May 13, 1992. In addition to answering these questions, this letter also provides responses to several others raised in Ms. Norgren's 1992 correspondences which were not included in your April 9, 1993, letter. Those questions and our responses are found in the final section of this letter entitled "Previous Hotline Questions." I hope that the following information is helpful in resolving these issues.

I. Discrepancies in the Codified Hazardous Substance List

Question A: Phenylenediamine (para-isomer) is listed under the CAS number 106503 in Appendix A to §302.4. 2-Chloro-1,3-butadiene is listed in the same appendix under CAS number 126998. Neither of these substances are represented in the alphabetical listing at §302.4. Are these hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)? If so, what are their respective RQs?

Answer: When phenylenediamine (para-isomer) and 2-chloro-1,3-butadiene were originally listed in Appendix A of 40 CFR 302.4, neither of these substances had been designated as specific hazardous substances under CERCLA. These two substances are components of hazardous waste streams. When the waste streams that contain phenylenediamine and 2-chloro-1,3-butadiene were

added to Appendix A, these two waste stream constituents were also added to the Appendix A list. Because neither of the substances were specifically listed CERCLA hazardous substances, they should not have been included on either Table 302.4 or Appendix A of 40 CFR 302.4.

Since then, however, these two substances have become CERCLA hazardous substances. CERCLA section 101(14) defines a CERCLA hazardous substance by referencing a number of different environmental statutes; CERCLA section 101(14)(E) defines hazardous substances to include "any hazardous air pollutant listed under section 112 of the Clean Air Act." In November of 1990, p-Phenylenediamine ((a synonym for phenylenediamine (para-isomer) with the same CAS number 106503)), and cloroprene (a synonym for 2-chloro-1,3-butadiene with the same CAS number 126998) were added to the list of hazardous air pollutants under section 112 of the Clean Air Act (CAA). Consequently, these two substances were automatically designated as CERCLA hazardous substances pursuant to CERCLA section 101(14)(E), and were assigned one-pound statutory RQs.

The Agency is currently developing a proposed rule to adjust these statutory one-pound RQs by regulation. When this rule is promulgated, p-Phenylenediamine and chloroprene will be included on Table 302.4 and Appendix A in 40 CFR 302.4. Because CAA section 112 did not specifically identify any synonyms for p-Phenylenediamine and chloroprene, the continued listing of the chemical names "phenylenediamine (para-isomer)" and "2-chloro-1, 3-butadiene" on Appendix A of 40 CFR 302.4 is incorrect. Therefore, the entries for these two synonyms will be deleted from Appendix A when the rule to adjust RQs for the new CAA substances is promulgated.

Question B: The December 27, 1989, designation rule assigned strychnine sulfate (60-41-3), nicotine sulfate (65-30-50) and warfarin sodium (129-06-6) the RQs of 10, 100, and 100 pounds, respectively. The adjusted RQs have been codified in 40 CFR Part 355, but the January 1992 List of Lists reflects the statutory RQ of one pound for each substance. Which is correct?

Answer: The RQs specified in 40 CFR Part 355 are correct; the List of Lists is incorrect. Strychnine sulfate (60-41-3), nicotine sulfate (65-30-50), and warfarin sodium (129-06-6) are extremely hazardous substances (EHSs). In addition, they are CERCLA hazardous substances because they are members of three narrow categories of listed hazardous substances, namely strychnine and salts (CAS number 57-24-9), nicotine and salts (CAS number 54-11-5), and warfarin and salts (CAS number

81-81-2), respectively.[1] Strychnine and salts, nicotine and salts, and warfarin and salts are listed as RCRA hazardous wastes, and, thus, are CERCLA hazardous substances.

In a final rule published on August 14, 1989 (54 FR 33426), the Agency promulgated adjusted RQs for 258 hazardous substances and narrow chemical categories, including strychnine and salts (10-pound RQ), nicotine and salts (100-pound RQ), and warfarin and salts (100-pound RQ). Because of the small number of specific substances within each of these three narrow categories, and the low variability of their hazardous characteristics, the Agency was able to establish an RQ for each of the three categories that reasonably reflected the characteristics of all of the specific substances within these categories. For purposes of CERCLA section 103 notification requirements, therefore, a release of strychnine sulfate that equals or exceeds 10 pounds, a release of nicotine sulfate that equals or exceeds 100 pounds, or a release of warfarin sodium that equals or exceeds 100 pounds must be reported to the National Response Center.

In a notice of technical corrections published on December 27, 1989 (54 FR 53057), the Agency noted that the August 14, 1989 final rule, in promulgating RQs under 40 CFR 302.4, had failed to make conforming revisions to the RQs for CERCLA hazardous substances listed in Appendices A and B of 40 CFR Part 355 (i.e., CERCLA hazardous substances that are also EHSs). The Agency corrected this oversight in the December 27, 1989, technical corrections notice. In that notice, the Agency revised the RQs listed in 40 CFR Part 355 for strychnine sulfate, nicotine sulfate, and warfarin sodium to reflect the RQs of the related narrow chemical categories. The RQs for strychnine sulfate, nicotine sulfate, and warfarin sodium of 10, 100, and 100 pounds, respectively, as listed in the December 27, 1989, technical corrections notice and codified under 40 CFR Part 355, are correct.

The Agency proposed to specifically list strychnine sulfate, nicotine sulfate, and warfarin sodium as CERCLA hazardous substances in a January 23, 1989, Notice of Proposed Rulemaking (NPRM) (54 FR 3388). In an August 30, 1989, NPRM (54 FR 35988), the Agency proposed adjusted RQs of 100 pounds for strychnine sulfate, and 10 pounds for nicotine sulfate and warfarin sodium.

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[1] Because CAS numbers are given for parent compounds under RCRA (see footnote one to the list of discarded commercial chemical products in 40 CFR 261.33), the CAS numbers for these three narrow categories of substances are different from those assigned to strychnine sulfate, nicotine sulfate, and warfarin sodium. Nonetheless, the specific EHSs are members of these categories and, thus, are CERCLA hazardous substances.

Until these proposed RQ adjustments are promulgated, the EPCRA and CERCLA reporting triggers will remain 10, 100, and 100 pounds, respectively. Thus, the one-pound RQ listed for each of these three substances in the January 1992 List of Lists is incorrect.

II. Determining Reportable Quantities

Question: The May 24, 1989, Federal Register states "the placement of a hazardous substance in an unenclosed structure would constitute a release regardless of whether an RQ of the substance actually volatilizes into the air or migrates into surrounding water or soil" (54 FR 22526). In Fertilizer Institute V. EPA (June 11, 1991), the Agency's interpretation that placement constituted a reportable release was vacated by the U.S. Court of Appeals for the D.C. Circuit. What is the current official EPA interpretation of this definition? Has there been any administrative action (i.e., the issuance of a memo) altering the May 1989 interpretation?

Answer: CERCLA section 101(22) defines "release" as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment . . ." (emphasis added). Under section 101(8), the term environment means "the navigable waters, . . . and any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States."

EPA interpreted the phrase "into the environment," in the preamble to the final rule adjusting the reportable quantities (RQs) for radionuclides (54 FR 22524, May 24, 1989), to include instances in which a hazardous substance is exposed to the environment. In the same final rule, the Agency considered the stockpiling of an RQ of a hazardous substance to be a release on the basis that any activity involving the placement of a hazardous substance into an unenclosed containment structure where the substance is exposed to the environment is considered a release. Thus, according to this interpretation, the placement of an RQ of a hazardous substance in an unenclosed structure would constitute a release, regardless of whether an RQ of the substance actually volatilizes into the air or migrates into surrounding water or soil.

A number of parties, including The Fertilizer Institute, filed suit, claiming that EPA's interpretation of "release into the environment" in the May 24, 1989, final rule was too broad and that it contradicted the meaning of CERCLA and the intent of Congress.

The Court of Appeals ruled that EPA had wrongly equated a "release" into the environment with "exposure" to the environment by considering a release to include placement of hazardous substances into open containment structures (The Fertilizer Institute v. EPA 935 F.2d 1303 (D.C. Cir. 1991)). As the question from the Hotline correctly states, the Court vacated the Agency's interpretation of CERCLA as requiring parties to report the placement of an RQ of a hazardous substance into an unenclosed containment structure. EPA is currently considering a new formulation of its interpretation of release into the environment that will alter the May 1989 interpretation consistent with the Court's decision in the Fertilizer Institute case. However, to date EPA has not issued a new interpretation. Until it does, questioners raising this question should determine, based on the language of CERCLA sections 101(22) and 103(a), what constitutes a reportable release.

III. Federally Permitted Releases

Question A: A facility has leaked heat transfer fluid containing ethylene glycol into a sewer that leads to a Publicly Owned Treatment Works (POTW). The facility has a POTW permit that specifies limits on total suspended solids, pH, and biochemical oxygen demand, as well as a generic specification that prohibits the discharge of toxic substances that would overload the treatment system. Since a permit to discharge to a POTW qualifies as a federally permitted release, would the release of ethylene glycol to the sewer be exempted from CERCLA section 103 notification, or must a substance be specifically designated in a permit (with a quantity limit) in order to be exempted from CERCLA section 103 notification as a federally permitted release? Similar questions have come up regarding air permits which specify limits on generic classes, e.g., VOCs, but don't designate specific substances.

Answer: Section 101(10)(J) of CERCLA provides that "the introduction of any pollutant into a publicly owned treatment works when such pollutant is specified in and in compliance with applicable pretreatment standards of section 307(b) or (c) of the Clean Water Act..." is federally permitted. Regarding CAA permits, CERCLA section 101(10)(H) states that "any emission into the air subject to a permit or control regulation ... or State implementation plans..." is federally permitted. In a proposed rule published on July 19, 1988 (53 FR 27268), and again in a July 11, 1989, supplemental notice (54 FR 29306), the Agency proposed to clarify the federally permitted release definitions under CERCLA section 101(10). Until such time as the federally permitted release regulation is promulgated, the facility must determine, based on the language of CERCLA section 101(10), whether its sewer or air release is federally permitted.

Question B: A boiler is exempted from having an air permit by the State air pollution control board. The boiler releases an RQ of a CERCLA hazardous substance within a 24 hour period. The definition of federally permitted release in CERCLA section 101(10) includes "any section 111, section 112, Title I part C, Title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act ... including any schedule of waiver granted, promulgated, or approved under these sections." Does the permit exemption granted by the State qualify as such a waiver, so that the hazardous substance release is part of a federally permitted release?

Answer: As correctly noted in the example provided, under CERCLA section 101(10)(H), releases subject to a "... schedule or waiver granted, promulgated or approved..." under CAA section 111, section 112 part C, Title I part C, Title I part D, or a State implementation plan submitted in accordance with CAA section 110 may qualify as federally permitted releases. Until such time as the Agency, through the rulemaking process, promulgates interpretations clarifying the federally permitted release definitions under CERCLA section 101 (10), the facility must determine, based on the language of CERCLA section 101(10), whether an air release from the boiler is federally permitted.

IV: Reportable Quantities for PCBs

Question: What is the reportable quantity for a PCB aroclor specifically listed in Table 302.4? For example, if aroclor 1016 was released, would reporting be required after one pound was released or are there no reporting requirements associated with the seven aroclors specifically listed?

Answer: Currently, certain aroclors are listed in two different ways on the CERCLA "List of Hazardous Substances and Reportable Quantities" in Table 302.4 of 40 CFR 302. First, seven aroclors (Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, and Aroclor 1260) are specifically listed alphabetically (under "A") in Table 302.4. The one-pound RQs for each of these seven aroclors appears next to this alphabetical listing.

In addition, these same seven aroclors are listed beneath the listing of the category "POLYCHLORINATED BIPHENYLS (PCBs)" in Table 302.4. The one-pound RQs for the seven aroclors, however, have not been repeated in this second listing. An RQ of one pound has been established, and is listed in Table 302.4, for the category "POLYCHLORINATED BIPHENYLS (PCBs)."

Because the seven aroclors (i.e., Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260) are specifically listed in Table 302.4 of 40 CFR 302.4 with one-pound RQs, a release of one pound or more of any of these substances must be reported immediately

to the National Response Center under CERCLA section 103 and to State and local authorities under EPCRA section 304.

Previous Hotline Questions

As mentioned above, Ms. Amy E. Norgren of your office raised several additional questions in letters dated April 15 and May 13, 1992, regarding the CERCLA petroleum exclusion and Superfund removal activities. The following responds to those questions.

CERCLA Petroleum Exclusion

Question A: Page 5 of the July 31, 1987, Office of General Counsel (OGC) memo on the scope of the petroleum exclusion states that under the Agency's interpretation "the source of the contamination, whether intentional addition of hazardous substances to the petroleum or addition of hazardous substances by use of the petroleum, is not relevant to the applicability of the petroleum exclusion" (neither would be within the scope of the exclusion). The same page also states that "'petroleum' under CERCLA also includes hazardous substances which are normally mixed with or added to crude oil or crude oil fractions during the refining process." As a result of the new Clean Air Act requirements, many manufacturers are formulating oxygenated gasoline, which may involve the blending of a CERCLA hazardous substance (generally an alcohol) into gasoline. This blending may take place at a refinery or at a terminal. Would the oxygenated gasoline fall within the scope of the CERCLA petroleum exclusion?

Answer: Historically, the Agency has interpreted the CERCLA section 101(14) petroleum exclusion to cover crude oil and the crude oil constituents that are indigenous to the petroleum (e.g., benzene, xylene), or that are normally mixed with or added to crude oil or crude oil fractions during the refining process (e.g., tetraethyl lead). On August 12, 1983, OGC issued a memorandum indicating that gasoline blended during the refining process is within the scope of the petroleum exclusion. In particular, the 1983 OGC memo stated that "[b]ecause virtually all of the gasoline which is sold as motor transportation fuel is blended gasoline rather than raw gasoline, a reasonable interpretation of the petroleum exemption is that it applies to the blended gasoline product as well as raw gasoline." Under this interpretation, oxygenated gasoline, which may involve the blending of a CERCLA hazardous substance into gasoline, whether the blending takes place at a refinery or a terminal, would fall within the petroleum exclusion. Therefore, the blended gasoline would not be a hazardous substance and would not be subject to CERCLA reporting, response, or liability requirements.

Question B: More generally, we frequently receive questions as to whether refined distillates of petroleum (e.g., stoddard solvents, mineral spirits, and naphtha) are within the scope of the CERCLA petroleum exclusion.

Answer: To the extent that refined distillates of petroleum are crude oil fractions and are not otherwise specifically listed or designated as hazardous substances under CERCLA section 101(14)(A)-(F), these substances are within the CERCLA section 101(14) petroleum exclusion.

Superfund Removal Activities

Question A: In answering questions relating to Superfund Removal Activities, Hotline staff often refer to a memorandum written by Timothy Fields, titled "Outline of EE/CA Guidance," dated March 30, 198? (the year is illegible). We would like to know: (1) whether the memo was issued in 1988 or in 1989; and (2) whether the guidance has ever been developed pursuant to this outline.

Answer: The memorandum from Timothy Fields to the Superfund Branch Chiefs in Regions I-X concerning the Outline of Engineering Evaluation/Cost Analysis (EE/CA) Guidance was issued on March 30, 1988. Guidance pursuant to this outline is being developed by the Agency.

Question B: We are currently working on a Hotline Monthly Report Question (MRQ) that deals with emergency response procedures. MRQs represent frequently asked or complex questions that may require interpretations by EPA. After working with an OSWER contact to clarify the answer, the question is submitted to OGC for a legal review and eventually included as part of the published Hotline Monthly Report. This particular MRQ deals with the procedures that must be followed when a hazardous substance, in an amount exceeding a reportable quantity, is released at a Superfund site during cleanup activities. Would the National Response Center (NRC) need to be notified?

Answer: CERCLA section 103(a) requires the person in charge of a vessel or facility from which a hazardous substance has been released in a quantity that equals or exceeds its RQ to notify the National Response Center as soon as he/she has knowledge of the release. Unless otherwise exempted from these CERCLA section 103 notification requirements, a release of a hazardous substance that equals or exceeds its RQ, including a release from a Superfund site that occurs during cleanup activities, must be reported to the NRC. If, however, a release of a hazardous substance from a Superfund site is continuous or anticipated intermittent and stable in quantity and rate, the release may be reportable under the reduced reporting provisions of the

continuous release reporting regulation (see 40 CFR 302.8). It is important to note that, under CERCLA section 120, all requirements of CERCLA apply to the Federal government in the same manner and to the same extent that they apply to any non-governmental entity. Therefore, even if the Superfund site is a Federal facility, the section 103 notification requirements and other provisions of CERCLA apply.

If you have any questions, please feel free to call me at (703) 603-8732.

Sincerely,

Gerain Perry

Gerain Perry, Chief
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